

52 + 71 1/2

Work Order ID 81351

81351

Page 1

March-13-12 1:36:49 PM

Item ID: D3656-3

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: PANEL

Start Date: 13/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 27/03/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: MLJ

Date: 12/03/13 Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3656

Rev B

100

0.00

100

HAND FINISHING THERMOFORMING

Thermoform

Memo

0.00

Thermoforming Machine

Cut Blanks to fit frame size

x2

12/23/20

105

0.00

105

Dry Material

HandThermo

Memo

0.00

Hand Finishing Thermoforming

Dry Sheet as per QSI022 POLYCARBONATE

Temp: 240°F

Time IN: 7:00 pm 12/03/09

Time OUT: 5:00 am 12/03/20

x2

12/03/20

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Page 2

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Setup Start ***NS1***

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Item Name: PANEL

Stop ***NS2***

Start Date: 13/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 27/03/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	THERMOFORMING MACHINE	0.00							
110						x2			Wk
Thermoform	Memo	0.00							12/03/20
Thermoforming Machine	Thermoform as per Dwg. D3656-3 and Folio FTA 016 using tool DT8987Dwg. Rev. <u>B</u> Folio Rev. <u>C</u>								
120	QC2- Inspect parts off machine FAI/FAIB	0.00							
120						x1			Dh
QC	Memo	0.00							12/03/20
Quality Control	Visually inspect for proper formation of each part								
130	QC8- Inspect parts - second check	0.00							
130						X1			B
QC	Memo	0.00							12/04/12
Quality Control									

P10 →

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3656-3 PAR #: _____ Fault Category: thermoform NCR: Yes No DQA: AK Date: 12/04/23
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: AK Date: 12/4/23

NCR: <u>12/30/1</u>		WORK ORDER NON-CONFORMANCE (NCR) <u>759.00</u>						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>12/03/20</u>	<u>120</u>	<u>large deformation caused by blister (delamination) of mould. Blister expands & collapses with heat.</u> <u>R-L marked molds.</u>	<u>SV</u> <u>12/04/12</u> <u>ASZ042</u>	<u>Repair Mold & Replace 1 part.</u> <u>M 14459</u>	<u>DL</u> <u>12/03/30</u>	<u>S</u> <u>12/04/12</u>	<u>S</u> <u>12/04/12</u> <u>ASZ042</u>	<u>S</u> <u>12/04/12</u>

NOTE: Date & initial all entries

Work Order ID 81351

March-13-12 1:36:49 PM

81351

Page 3

Item ID: D3656-3 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: PANEL
 Start Date: 13/03/2012 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 27/03/2012 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 *140* Thermoform Thermoforming Machine	HAND FINISHING THERMOFORMING Memo Trim to Finished Dimensions as per dwg D3656	0.00 0.00				x 1			12/04/02
150 *150* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo Check dimensions to ensure conformity to drawing tolerances.	0.00 0.00				x 1			12/04/02
160 *160* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00		8/12/12		(X)			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

Work Order ID 81351

81351

Page 4

March-13-12 1:36:49 PM

Item ID: D3656-3

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: PANEL

Stop ***NS2***

Start Date: 13/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 27/03/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

170

Identify as per dwg & Stock Location:

0.00

170

Packaging

Memo

Pkg 81338

0.00

Packaging

12/14/12 U

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Memo

0.00

Quality Control

12/14/17 JF
MF
12-04-17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March-13-12 1:36:58 PM

Page 1

Work Order ID: 81351

81351

Parent Item: D3656-3

D3656-3

Parent Item Name: PANEL

Start Date: 13/03/2012

Required Date: 27/03/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev. A 07/12/13 New Issue DL verified by:DD

IPP Rev. B 08/09/25 Dwg. Update DL

IPP Rev. C

Add Step 105 Dry Material 10/04/21 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-07		Purchased	No			100	sf	1,585.990	34.66	34.66			

MI FXS 093-F6006-07

GE PLASTICS LEXAN SHEET

**

Location

Loc Qty

Loc Code

therm

1585.99

112176

40.44

114459

1545.55

69.32 of 41

Dh
12/04/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	81351
Description: Panel		Part Number:	D3656-3
Inspection Dwg: D3656	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Shape Definition	✓			
Free of visual flaws (bumps, cracks, voids, etc.)	✓			
	✓			

Measured by: DL Date: 17/03/30

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.040	Min	0.043"			UEN DL-02	
0.045	Min	0.050"			UEN DL-02	
0.050	Min	0.073"			CAL TH-DT	
60.25	REF	60.25"			TAPE TH-05	
40.75	REF	40.75"			TAPE TH-05	
0.7	REF	0.65			UEN DL-02	

Measured by: DL Date: 17/04/02

Audited by: BB Date: 12/04/12

Prototype Approval: N/A Date: N/A

Rev	Date	Change	Revised by	Approved
A	08.05.28	New Issue	KJ/DL	
B	09.09.15	Dimensions updated per Dwg Rev B	KJ	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

0.7
(BOTH SIDES, REF)

3.1 REF

1.1 REF

21.2 REF

MINIMUM THICKNESS = 0.070
(ENTIRE FLANGE, BOTH SIDES)

TEXTURED SURFACE
ON THIS SIDE

24.7 REF

16.5 REF

57.5 REF

9

MINIMUM THICKNESS = 0.050
(ALL OVER EXCEPT WHERE NOTED)

D3656-1 PANEL

NOTES:

- 1) MATERIAL: F6006 SUEDE/POLISHED GY5B133 LIGHT GREY LEXAN SHEET 0.093 THICK
(REF DART SPEC MLEXS.093-F6006-07)
- 2) TOOLING: THERMOFORM PER MOLD DT8986 PER QSI 022
TRIM PER DT8986
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: ETCH P/N AND B/N ON SMOOTH SIDE OF PART
- 8) WEIGHT: 6.6 lbs
- 9) DIMENSIONS TAKEN WITH PART IN MOLD WHERE INDICATED

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 81351 MLO

12/03/13

RELEASED
08-07-30 11:11

B	REMOVE SKYLIGHT CUTOUTS, UPDATED NOTE 2 (A6-2); REASON: EASE OF MANUFACTURE AND CUSTOMER REQUEST	PH	08.09.18
A	NEW ISSUE	LE	08.03.03
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN	CE		
CHECKED	PA		
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.09.18		

DART AEROSPACE LTD

HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D3656** REV. B
SHEET 1 OF 2

TITLE **PANEL** SCALE
NTS

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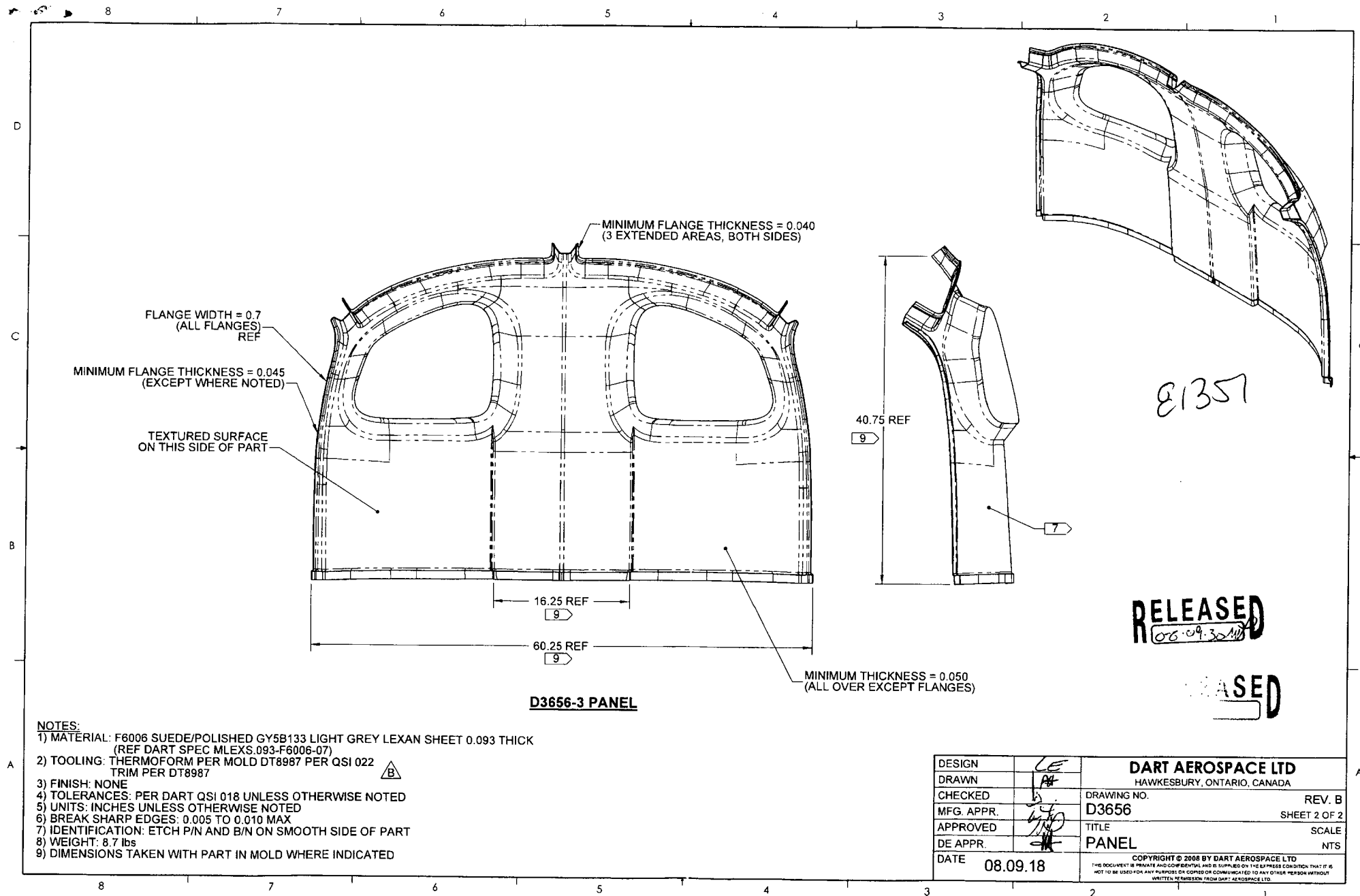
W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



NOTES:

- 1) MATERIAL: F6006 SUEDE/POLISHED GY5B133 LIGHT GREY LEXAN SHEET 0.093 THICK (REF DART SPEC MLEXS.093-F6006-07)
- 2) TOOLING: THERMOFORM PER MOLD DT8987 PER QSI 022 TRIM PER DT8987 B
- 3) FINISH: NONE
- 4) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 7) IDENTIFICATION: ETCH P/N AND B/N ON SMOOTH SIDE OF PART
- 8) WEIGHT: 8.7 lbs
- 9) DIMENSIONS TAKEN WITH PART IN MOLD WHERE INDICATED

DESIGN	CE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	PA		
CHECKED	JS	DRAWING NO.	REV. B
MFG APPR.	4/10	D3656	SHEET 2 OF 2
APPROVED	4/10	TITLE	SCALE
DE APPR.	4/10	PANEL	NTS
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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